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ABSTRACT

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A system and method for cooling and heating of buildings consisting of an integrated assembly of devices, including a variable speed air handler, hot water heating coil, outside air damper, controller, and optional compressor-based air conditioner. During summer the system utilizes nighttime outside air for cooling and uses air temperature predictions to provide information about optimal control settings and to maintain comfort. During winter the system varies airflow with heating demand and ventilates with outside air to maintain indoor air quality.

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